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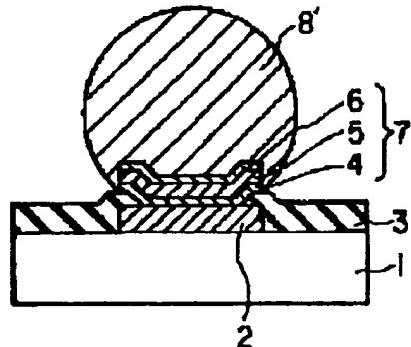
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TITLE : SEMICONDUCTOR ELEMENT



ABSTRACT : PROBLEM TO BE SOLVED: To obtain a barrier metal having a high mobility capable of avoiding the decline in shear strength and the release of a bump by forming a barrier metal of the laminated films successively formed of the first film containing titanium, the second film containing nickel titanium compound and the third film containing nickel.

SOLUTION: A bump 8' is formed on an electrode pad 2 through the intermediary of barrier metals 7. In such a constitution, the barrier metals 7 are composed of laminated layer films successively formed of the first film 4 containing titanium, the second film 5 containing nickel titanium and the third film 6 containing nickel. For example, an Au bump 8' is formed on a semiconductor chip 1 whereon an aluminum pad 2 is formed through the intermediary of the barrier metals 7. That is, the barrier metals 7 are structured of the successively laminated layers of the titanium film 4, the nickel titanium compound (nickel titanium solid solution) film 5 and the nickel film 6.

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